

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

<b>In the Matter of</b>	)	
	)	
<b>Petitions for Rulemaking</b>	)	<b>RM-10781 through RM 10787</b>
<b>Against Morse Code in</b>	)	
<b>Amateur Radio Licensing</b>	)	

**To: The Commission**

**REPLY COMMENTS OF  
THE POTOMAC VALLEY RADIO CLUB**

Pursuant to Section 1.405 of the Federal Communications Commission’s (FCC or Commission) Rules, 47 C.F.R. §1.405, the Potomac Valley Radio Club, Inc. (“PVRC”) hereby submits these Reply Comments in the above-captioned proceedings, which generally propose to eliminate or severely limit the application of Element 1 in Amateur Radio Service license testing. PVRC is a non-profit Amateur Radio organization with more than 750 active members. Having reviewed a significant portion of the comments filed in this proceeding, PVRC believes that the record supports a finding that elimination of the Morse Code (“CW”) testing requirements for at least the Amateur Extra Class license is not justifiable on the basis of public policy, national safety or the public interest.

**The Comments.** Most of the comments filed in these proceedings were one page in length, but some provided more detailed arguments and reasoning. Many of the commenters voiced strong opposition to the elimination of CW in the United States

Amateur Radio licensing process, mostly on the basis of public interest and emergency preparedness concerns. These were the same public interest observations that PVRC offered in its Comments in these proceedings.

Some of the commenters oppose CW, claiming it is antiquated and of little or no use in today's communications environment and they ask that it be eliminated entirely for all purposes.<sup>1</sup> PVRC believes it is important that the Commission be aware that many of those commenters' pleadings contain biased, factually inaccurate, and in some cases legally untenable assertions. PVRC supports the many commenters who have urged retention of CW testing, whether for all non-entry-level classes or for only the Amateur Extra Class license.

**Petitioners Have Failed to Demonstrate Any Public Interest Benefit to Eliminating CW Testing.** Based on the record of this proceeding, the principal rationale for eliminating CW testing is that CW is antiquated and is no longer used.<sup>2</sup> But anyone who has an HF receiver need only listen to the CW portions of the Amateur

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<sup>1</sup> It is perhaps not surprising that a large percentage of those summarily opposed to CW testing have never learned CW or taken a CW examination and today would be unable to send or receive a CW message in the event of a life and death emergency when this was the only mode available. While this inability does not diminish their putative willingness to serve as emergency communications operators, it certainly limits their ability to contribute meaningfully when messages must be communicated under marginal or difficult circumstances. At the very least, these commenters' credibility is questionable given they have no experience with CW. Moreover, as PVRC noted in its Comments in these proceedings, the intense opposition to CW testing by those who seek more privileges for no demonstration of emergency communication skills is unequivocal evidence of a desire to "dumb down" the licensing requirements in the United States. *See* PVRC Comments at 3, n.1. In fairness, some who oppose CW testing are motivated by the notion that making it easier to access HF spectrum will encourage more young people to enter the avocation. But lowering the CW testing speed and otherwise easing access to HF privileges has not been demonstrated to foster this goal, as discussed more fully *infra*.

<sup>2</sup> Indeed, CW is also used by experimenters in UHF/VHF activities and for public service functions. It is anything but antiquated or unused in the Amateur Radio Service.

Radio bands to see that CW is as enthusiastically used as other modes, particularly when propagation is favorable. At times, particularly during on-air competitions, there is “wall-to-wall” CW activity among thousands of operators on a worldwide basis.<sup>3</sup>

Contrary to the suggestion of some commenters, CW’s absence from commercial channels is simply not a rationale for eliminating it from the testing requirements for Amateur Radio operators. Currently, most Amateurs with HF privileges retain the ability to use CW under exceedingly adverse conditions to carry health and welfare traffic (emergency communications) when and where needed. This is a unique capability that should not be lost.<sup>4</sup>

Moreover, those who argue so fervently for increased spectrum privileges without a Morse Code requirement are largely Amateurs who have not chosen to exercise the discipline to learn CW and pass a simple proficiency test. They want the full range of privileges historically held by those who have earned them – but without the added work.

One commenter who supports elimination of CW testing contends that because other, non-Amateur services involved in emergency work “do not use CW for any emergency or disaster communications”<sup>5</sup> he has proven that CW is no longer needed

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<sup>3</sup> See, e.g., Comments of Tom Champlin, whose view is that the CW bands are “wasted” because there is currently low Morse activity. One could similarly assert that the SSB bands are wasted because, as it happens, all Amateur HF bands are less crowded when propagation is lacking.

<sup>4</sup> “While the military once trained many Morse operators, a large number of whom became amateur operators, that source of training has largely disappeared with advancing technology. It is incumbent on amateur radio to supply all the self-training to assure maintenance of [an] adequate number of Morse qualified amateurs if the capabilities of the mode . . . are to survive.” Comments of Richard S. Carroll at 1. Those capabilities, this commenter correctly observes, “. . . are just as routinely ignored by those who prefer to see the use of Morse disappear.” *Id.*

<sup>5</sup> Reply Comments of Leonard H. Anderson at 2.

for emergency communications. This argument turns facts and logic on their head, because the need for Amateurs to preserve their CW capabilities becomes most clearly evident (and essential) when those other emergency services are rendered unusable. CW may not be used commercially but its availability as a “last resort” mode when other, more sophisticated modes fail is at the heart of both Amateur Radio and civil preparedness. History is replete with examples of operators who knew CW being able to send emergency messages when more sophisticated voice and data systems had failed.<sup>6</sup> CW is also an efficient mode that utilizes exceedingly narrow bandwidths and has a distinct signal-to-noise ratio benefit of some 7-12 dB, making it potentially the only mode that will “get through” in some instances. This is the skill that must not be lost by abandoning CW testing.<sup>7</sup>

The same commenter’s repeated insistence that Amateur Radio is not an emergency communication resource is even more egregious.<sup>8</sup> To the contrary, every

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<sup>6</sup> CW was used by the British military during the Falklands war when it had difficulty communicating normal voice and data modes through Argentinean jamming. Indeed, the U.S. Army Rangers have reintroduced CW training to assure communications when other modes fail. *See, e.g.*, Comments of Leonard H. Anderson at 4; Comments of Kenneth K. Brown at 1; Comments of James L. Zimmerman at 1. One of the reasons is that CW in the field requires very low power, thanks to its signal-to-noise ratio advantage. *See n.7, infra*.

<sup>7</sup> It has been argued in technical journals for years whether the advantage of CW is 7, 8, 10 or 12 dB. The exact figure is determined by bandwidth and keying speed issues, but in any case it is clear that there is a distinct benefit to CW under adverse communications conditions. One commenter correctly notes that “[CW] is still a vital element for Homeland Security.” Moreover, he states, “It is a mode that is available, easy to learn, and economical.” Comments of Scott Royle at 2. Another commenter observes that CW provides mode diversity, a particular strength of Amateur Radio in times of emergency. Comments of D.J. Meier at 1.

<sup>8</sup> *Id.* at 4-6. For example, this commenter says, *inter alia*, “Emergency and disaster communications was [sic] never the primary focus of U.S. amateur radio activities.” *Id.* at 5-6.

licensed Amateur Radio operator should know that Section 97.1(a) of the Commission's Rules explicitly states that a foremost purpose of Amateur Radio is to provide emergency communications service to the public on a voluntary basis. The Rule states the following:

Recognition and enhancement of the value of the amateur service to the public as a voluntary noncommercial communication service, particularly with respect to providing emergency communications. [Emphasis added.]<sup>9</sup>

The remainder of this commenter's arguments is similarly without merit and should be summarily rejected. Unfortunately, his submission is representative of those who seek to garner privileges without demonstrating the kinds of skills that are at the heart of Part 97 of the Commission's Rules.<sup>10</sup>

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<sup>9</sup> 47 C.F.R. Section 97.1(a). CW is a critically important skill that must be retained to assure the availability of emergency communications capabilities in adverse conditions. *See* n.12, *infra*. Amateurs engage in a variety of competitions and other activities to assure that their CW skills remain honed and available for public service. In addition, CW is especially important in the context of overseas disasters because sophisticated antennas, high transmit power and the hardware needed to provide digital communications are not typically available in many underdeveloped countries. The bandwidth and low-power benefits of CW, discussed above, can provide the only effective means of communications into such locations. This is particularly true during periods of low sunspot activity when propagation effectively weakens distant signals. Use of CW under these circumstances fulfills the obligation of Amateurs under Section 97.1(e) of the Commission's Rules to enhance international goodwill. *See* 47 C.F.R. Section 97.1(e).

<sup>10</sup> Some have claimed that CW testing is stressful and simply too difficult. It has been wryly offered that state examinations for doctors, attorneys, pilots and even drivers' licenses be similarly eased to reduce testing stress. *See, e.g.,* Comments of Gene M. Long at 1. More to the point, it is likely that easing the testing burden will lead to an increased enforcement burden on the Commission. One need only reflect back to the early 1980s when massive growth of easy-to-obtain Citizen Band Service licenses created a processing and enforcement nightmare for the Commission. *See, e.g.,* Comments of Stephen J. Wisniewski at 1; Comments of Marco Wikstrom at 2; Comments of Frank A.

**CW Is a Skill That Must Be Maintained.** Most commenters supporting the subject rulemaking petitions appear to confuse CW as a mode with CW as a unique and valuable skill. The skill associated with CW proficiency differentiates its use from the typical appliance-like operation of a voice or data transceiver, which requires no more than speaking or typing to operate. Licensed Amateur Radio operators with HF privileges have demonstrated their ability to send and receive CW to qualify for those privileges.

Some argue that there would be greater interest in becoming an Amateur Radio operator were the CW requirement removed. This is simply wrong. Over the last decade, during which easier licensing standards have allowed those with minimal CW skills access to virtually all Amateur Radio CW spectrum, there has been no discernible increase in the influx of new Amateurs. Accordingly, it is not correct to suggest that elimination of the current 5 wpm CW test for the Amateur Extra Class license would somehow create a groundswell of aspiring Amateur Radio operators. The trend over the last two decades, since computers have become the focus of youngsters' interest, shows Amateur Radio growth slowing or even declining – during the very period when CW testing has been eased. Offering all Amateur Radio privileges with even easier testing will only serve to increase the proportion of Amateur operators whose skills are limited to speaking into a microphone or typing messages.<sup>11</sup> In sum, there is simply no reason to

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Lynch at 2. Historically, for young people and for all but the most resistant adults, CW has proven relatively easy to learn.

<sup>11</sup> Some have suggested that removing CW testing will lead to an increased enforcement burden on the Commission. “Persons who lack the initiative to learn CW are unlikely to have the initiative to operate in accordance with good engineering and good amateur practice.” Comments of Christopher J. Walker at 1.

believe that eliminating the CW testing element will increase the Amateur Radio population.

Indeed, PVRC believes that maintenance of a CW examination requirement for all HF-band privileges supports the basis and purposes of Amateur Radio as set forth in Section 97.1 of the Commission's Rules. Assuring that CW skills are always part of the training of Amateurs who wish to use HF bands guarantees that there will be operators available to handle emergency communications under adverse radio conditions.<sup>12</sup> When used in international emergency communications it will also fulfill the obligation of Amateur Radio "to enhance international goodwill."<sup>13</sup>

The Commission may wish to call upon interested parties in any subsequent rulemaking proceeding to demonstrate the relationships among CW testing generally, CW test speeds, HF privileges, upgrading licensees, new licensees, and related issues. Only in this way can the petitioners' claims regarding the impact on CW testing be evaluated with any confidence at all. It is PVRC's belief, however, based on its many members' collective years of experience, that the Commission will find no benefit at all to elimination of CW testing for all classes of Amateur Radio licenses.<sup>14</sup> Instead,

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<sup>12</sup> See 47 C.F.R. Section 97.1(a). See also n.7, *supra*. "The widespread, in-place 'installed base' of Morse based radiotelegraphy within the Amateur Radio Service makes it an important communications backup asset for emergency communications of all types, including Homeland Security." Comments of Richard S. Carroll at 1.

<sup>13</sup> See 47 C.F.R. Section 97.1(e). See also n.9, *supra*.

<sup>14</sup> It should be further noted that there are options for radio enthusiasts seeking to communicate but not take an exam at all, let alone a CW examination. They might consider the Citizens Band Service or Family Radio Service. Both offer opportunities for using appliances and talking with other people and none requires demonstration of the CW skill, or any technical knowledge for that matter. Also, the argument offered by some that VECs are overburdened with CW testing does not justify a substantive response. In short, it simply is not difficult to find Amateurs with CW skills to offer such tests, and PVRC stands ready to assist in supporting VEC efforts where needed.

elimination of CW will degrade the avocation, lose a critical emergency skill that is currently alive and active, and run counter to the public interest.<sup>15</sup>

**Under No Circumstances Should Any CW Band Segments Be Changed.** Some of those who would eliminate CW testing from the current licensing scheme reject the idea that the current CW sub-bands be changed or that CW be considered as anything less than a critical component of the Amateur Radio Service. For example, one such commenter states that CW is “a vibrant and viable part of the service,” and that “we should not call for any changes in spectrum allocation or band plan.”<sup>16</sup> PVRC strongly supports this view.

**Conclusion.** PVRC strongly urges the Commission to dismiss all extant rulemaking petitions seeking to eliminate CW testing from Amateur Radio licensing. In the unfortunate event the Commission chooses to commence a rulemaking proceeding in

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Moreover, Section 97.1(d) of the Commission's Rules specifically sets forth the Amateur Radio Service principle of “advancing skills in both the communication and technical phases of the art.” 47 C.F.R. Section 97.1(d). CW is a communication skill that remains vital and must be supported by continued testing as a prerequisite for use of the HF bands.

<sup>15</sup> Notwithstanding its opposition to elimination of CW from testing for at least the Amateur Extra Class license, PVRC does not object to – and in fact favors – creation of a new class of license akin to the Novice Class license of years ago, *i.e.*, a simple examination that offers the new licensee with a limited set of privileges. *See, e.g.*, Comments of Christopher Bunting at 1, Comments of Peter C. Albright at 1.

<sup>16</sup> Comments of Martin Fouts at 1.



response to any of these petitions, it should state clearly that the current subband allocations for CW will not be impacted.

Respectfully submitted,

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